HAWAI'I CREEPER *Manucerthia mana*

Other: Olive Green Creeper monotypic

native resident, endemic, endangered

Long considered in the genus *Oreomystis* along with the Akeke'e, primarily because it lacked a tubular tongue (Pratt 1992a, 2001, 2005), increasing evidence on its osteology (James 2004), mycology (S. Olson unpublished ms.), and genetics (Amadon 1950, James and Olson 1991, AOU 1998, Fleisher et al. 1998, Lepson and Woodworth 2002, Lovette et al. 2002, Reding et al. 2009) place the Hawai'i Creeper in a more recent clade, along with 'amakihis and 'Akepas. Here we follow Pratt (2009; see also Reding et al. 2009) in placing it in the new genus *Manucerthia*, as it seems to differ enough from 'Akepa to warrant generic status, although placing it within *Loxops* (Fleischer et al. 2001, James 2004, Olson unpublished ms.), is also defensible. An overhaul of Drepanine taxonomy based on updated molecular evidence is planned (H. James, pers. comm.) and may resolve this question. Hawai'i Creeper is the only Hawaiian honeycreeper now thought to have gained than lost a tubular tongue through evolution (James 2004, Reding et al. 2009, Olson unpublished ms.). See 'Akikiki and Synonymies for more on the taxonomy of Hawai'i Creeper.

Wilson (1891a) first collected five Hawai'i Creepers on ***Hawai'i I***, including at least two at the Mana Dairy near Waimea, the site for which the species is named (Banko 1979). However, he did not recognize these as distinct from Hawai'i 'Amakihi until, with the help of fellow taxonomists A. Newton and T. Salavdori, he examined his specimens back in London (Wilson 1891a, Wilson and Evans 1899). Wilson was not the first to have trouble discriminating Hawai'i Creeper from Hawai'i 'Amakihi (*cf*. Baldwin 1941, Scott et al. 1979, Pratt et al. 1987), but the suggestion by McCarthy (2006) that Hawai'i Creeper represents a "putative hybrid product" between 'Akikiki and Hawai'i 'Amakihi is incorrect. Banko (1979) summarizes 199 specimens in museum collections.

The Hawai'i Creeper was generally considered abundant and widespread on Hawai'i above 600 m elevation during the late 1800s (Rothschild 1900, Henshaw 1902a, Perkins 1903, Munro 1944; summarized by Banko 1984b, Lepson and Woodworth 2002), although it was notably absent at this time in suitable habitat near Kona (below 1000 m) and in certain areas above Puna and Hilo. By the 1930s Hawai'i Creepers were still being reported commonly (Williams 1936; *E* 1[4]:4, 7:65, 11:56), although only at higher elevations (particularly above Hawaii Volcanoes NP), and with some reports (e.g., of over 100 in one tree; *E* 12:28) being questioned due to possible confusion with Hawai'i 'Amakihi (Baldwin 1941). Baldwin (1941, 1953) also noted declining trends, particularly in lower elevations, and by 1958-1961 they were virtually gone from the park (Dunmire 1961, 1962). They continued to be reported frequently at elevations above 1700 m elevation but with general declines noted (Berger 1972, 1981; Conant 1975, 1981; Pratt et al. 1977; P. Banko and Banko 1980; USFWS 1982c; Banko 1984b), due primarily to disease, logging, grazing, and development (Scott and Kepler 1985, Scott et al. 1985, Lepson and Woodworth 2002). In the Kohala Mts., Hawai'i Creepers were observed in small numbers through 1973 but not thereafter (*E* 34:1-3; van Riper 1982a, 1982b; Scott et al. 1986).

During the HFBS in 1977-1979, Scott et al. (1986) estimated a population of about 12,500 Hawai'i Creepers in four disjunct populations: along the upper e. slopes of Mauna Loa and Mauna Kea (~10,000 individuals), in the Kau district on the upper se. slopes of Mauna Loa (~2100), on the upper w. slopes of Mauna Loa above Kona (~300) and on the n. slopes of Mt Hualalai (~210). They were found between 700 and 2200 m elevation, but primarily above 1100 m and with highest densities at 1500-1900 m. Although Hawai'i Creepers continued to be recorded commonly through the 2000s in certain areas of its range (e.g., Ralph and Fancy 1994b, Woodworth et al. 2001, Lepson and Woodworth 2002, USFWS 2006), declines have also been noted; e.g., they were found rarely if at all below 1000 m and may be virtually gone from Mt. Hualalai (*E* 55:55-56, Lepson and Woodworth 2002). Volcano Christmas Bird Count data indicate no significant trend in the Volcano area, but a spike in numbers during the late 1990s and early 2000s, followed by no observations since 2001 (Graph; see also Conant 1975, P. Banko and Banko 1980). Whereas densities appeared to be increasing during the 2000s in Hakalau NWR (Camp et al. 2009), they appeared to be declining elsewhere on Hawai'i I during the 1980-20002, especially on W slopes of Mauna Loa and Mt Hualalai (Camp et al. *in* Gorresen et al. 2009). Due to its declining population trends and the fate of other Hawaii endemics, the Hawai'i Creeper was listed as endangered by the USFWS in 1975 and by the State of Hawaii in 1982 (USFWS 1983d, 2006). It is considered a good candidate for aptive propagation (Lieberman and Kuehler 2009).

On 25 Sep 1891 Palmer collected a "remarkable specimen" at Puu Lehua, on the sw. slopes of Mt Hualalai, which was described by Rothschild (1900) as *Oreomyza* [*Oreomystis*] *perkinsi*. Although Rothschild considered the possibility that it might be a hybrid between Hawai'i Creeper and Hawai'i 'Amakihi, and Perkins (1903) thought that it might be a "sport" of the 'amakihi, they and others (e.g., Henshaw 1902a, Stejneger 1903, Hartert 1919) believed that it also could be a rare species that had been overlooked due to its similarity with other small green honeycreepers on Hawai'i. Bryan and Greenway (1944), Amadon (1950), and Greenway (1968), under "*Pareomyza perkinsi*", concluded that it was likely a hybrid. Genetic analysis of the specimen (at AMNH) is still needed to resolve the identity of *perkinsi*. Lepson and Woodworth (2001) also report a sight record of an individual at Hakalau NWR that could have been a hybrid between Hawai'i Creeper and 'Akepa. The possible occurrence of these hybrids has been used to support the placement of the Hawai'i Creeper in both *Oreomystis* (Pratt 2001) and *Loxops* (Lepson and Woodworth 2002); see above and Synonymies.

Acronyms and Abbreviations

Literature cited

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